

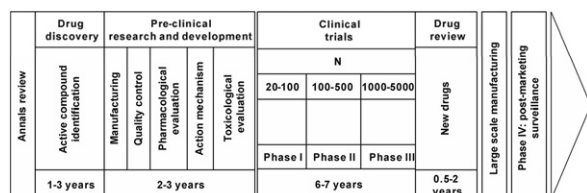
# Acta Pharmaceutica Sinica B

Volume 2, Issue 1, February 2012

## Reviews

Zhaoxiang Bian, Shilin Chen, Chungwah Cheng, Jun Wang, Haitao Xiao and Hongyan Qin

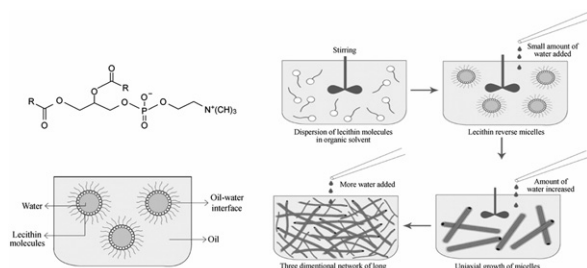
Developing new drugs from annals of Chinese medicine .. 1



The annals of Chinese medicine offer not only a rich resource for new drugs, but also several centuries of patient data with regard to safety and efficacy, that in effect represent pilot studies. Acknowledging and using these data can shorten new drug discovery time and improve efficiency of the drug development process, bringing more effective, safe drugs to market much more quickly and cheaply.

Sushil Raut, Santosh Singh Bhadoriya, Vaibhav Uplanchiwar, Vijay Mishra, Avinash Gahane and Sunil Kumar Jain

Lecithin organogel: A unique micellar system for the delivery of bioactive agents in the treatment of skin aging..... 8

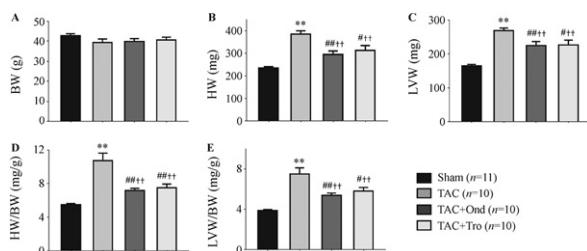


Lecithin organogel (LO) is one class of promising vehicles for the delivery of a wide variety of bioactive agents through the skin. It provides new perspective for topical delivery of anti-aging agents to treat the signs and symptoms of skin aging.

## Original Articles

Rong Huo, Chang Chen, Yan Chen, Zhe Li, Yunlong Hou and Deli Dong

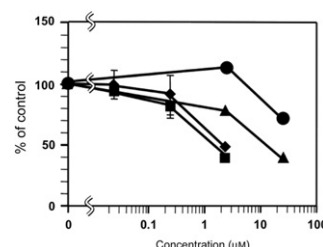
5-HT<sub>3</sub> receptor antagonists protect against pressure overload-induced cardiac hypertrophy in murine.....16



5-HT<sub>3</sub> receptor antagonists protected against cardiac hypertrophy and restored the desensitization of cardiac adrenergic responsiveness, the mechanism in which may be through reducing the sympathetic activity.

Takashi Fukuda, Ryuji Uchida, Hiroyo Inoue, Satoshi Ohte, Hiroyuki Yamazaki, Daisuke Matsuda, Takenobu Katagiri and Hiroshi Tomoda

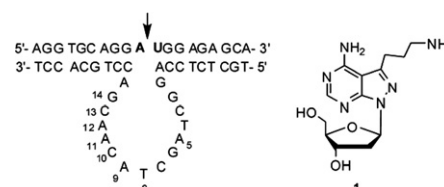
Fungal pyrrolidine-containing metabolites inhibit alkaline phosphatase activity in bone morphogenetic protein-stimulated myoblastoma cells .....23



Four structurally related compounds, lucilactaene, hydroxylucilactaene, NG-391 and NG-393, produced by fungal strain *Fusarium* sp. B88, inhibit BMP signaling *in vitro* and these fungal metabolites may provide a new direction in the development of FOP therapeutics.

Qi Wang, Di Zhang, Maosheng Cheng, Junlin He and Keliang Liu

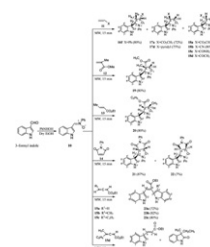
Catalytic cleavage activities of 10–23 DNAzyme analogs functionalized with an amino group in its catalytic core....28



Functionalization of the catalytic loop of 10–23 DNAzyme with an amino group was performed by incorporation of 7-(3-aminopropyl)-8-aza-7-deaza-2'-deoxyadenosine in different single positions. Among the nine modified positions in the catalytic loop, A9 is the unique position with positive contribution by such modification.

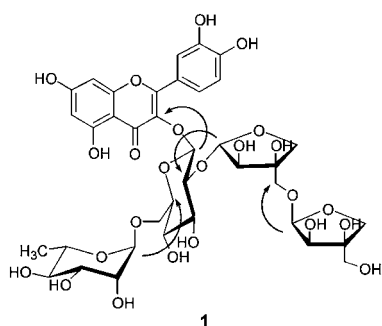
Vishal Sharma, Raman Kalia, Tilak Raj, Vivek K. Gupta, Nitasha Suri, Ajit K. Saxena, Deepak Sharma, Surinderjit S. Bhella, Gurbinder Singh and Mohan Paul S. Ishar

Synthesis and cytotoxic evaluation of substituted 3-(3'-indolyl-/3'-pyridyl)-isoxazolidines and bis-indoles .....32



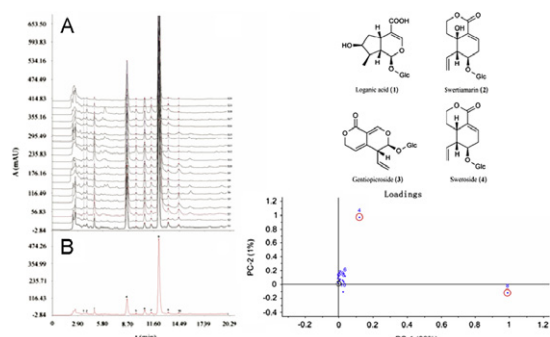
Regio- and stereoselective 1,3-dipolar cycloadditions of C-(3-indolyl)-N-phenylnitrone (10) were carried out with different mono-substituted, disubstituted and cyclic dipolarophiles under mono-mode microwave irradiation to obtain substituted 3-(indol-3'-yl)-N-phenyl-isoxazolidines (16–22) with significant cytotoxicity against a number of human cancer cell lines.

- Shanqin Yuan, Ming Yang and Yimin Zhao  
A new flavonol glycoside from glandless cotton seeds.....42



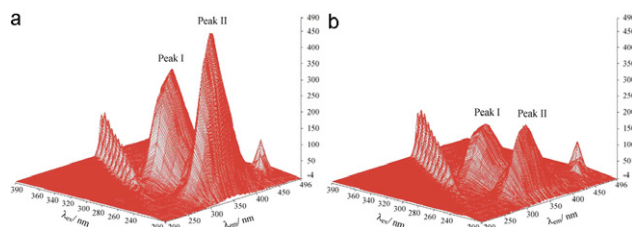
A new flavonol glycoside, namely quercetin 3-O-[ $\alpha$ -D-apiofuranosyl(1-5)- $\beta$ -D-apiofuranosyl(1-2)]- $\alpha$ -L-rhamnopyranosyl(1-6)- $\beta$ -D-glucopyranoside (1), was isolated from glandless cotton seeds.

- Baozhong Duan, Jianyong Hu, Linfang Huang, Xianying Yang and Fuying Chen  
Chemical fingerprint analysis of *Gentianae Radix et Rhizoma* by high-performance liquid chromatography .....46



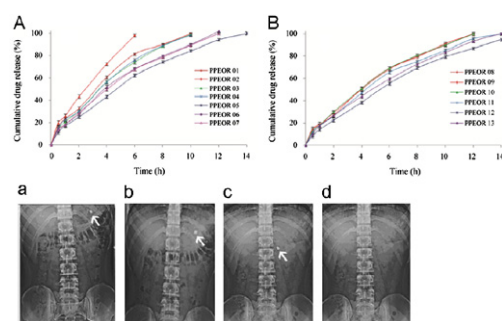
A novel and reliable method using high-performance liquid chromatography (HPLC) was developed both for quantitative analysis of four bioactive compounds (loganic acid, swertiamarin, gentiopicroside and sweroside) and chemical fingerprint analysis of “Longdan” and successfully applied to quality control for twenty batches of this herbal medicine from different regions of China.

- Yunfang Li, Guangzhong Yang and Zhinan Mei  
Spectroscopic and dynamic light scattering studies of the interaction between pterodonic acid and bovine serum albumin.....53



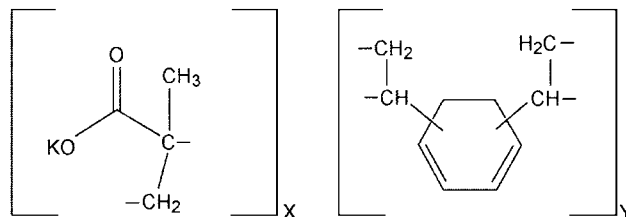
The present paper describes an investigation of the mechanism of interaction between pterodonic acid (PA) and protein using spectroscopic techniques and dynamic light scattering (DLS). PA quenches the fluorescence of bovine serum albumin (BSA) through a static quenching mechanism and the interaction leads to a change in the secondary structure of BSA.

- Meka Venkata Srikanth, Nali Sreenivasa Rao, Songa Ambedkar Sunil, Battu Janaki Ram and Venkata Ramana Murthy Kolapalli  
Statistical design and evaluation of a propranolol HCl gastric floating tablet .....60



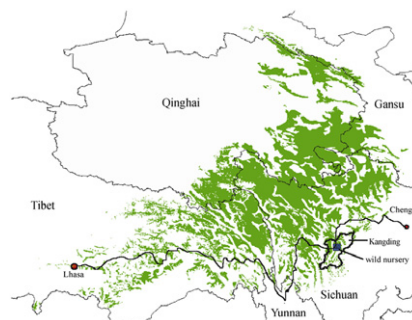
Statistical design was applied to the preparation of a gastric floating tablet (GFT) of propranolol HCl. The effect of formulation variables on drug release and the buoyancy properties of the delivery system were investigated.

- Mrudula Hemant Bele and Diliprao Vishramji Derle  
Mechanism of disintegrant action of polacrillin potassium: Swelling or wicking? .....70



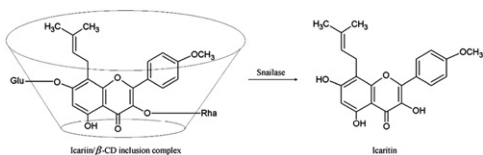
The effect of particle size, pH of medium, and presence of lubricant on the swelling behaviour, water uptake properties and disintegrant performance of polacrillin potassium was examined in this paper. It is wicking rather than swelling that is the major factor that contributes to the disintegration behaviour of polacrillin potassium.

- Xiwen Li, Jingyuan Song, Jianhe Wei, Zhigang Hu, Caixiang Xie and Guoan Luo  
Natural Fostering in *Fritillaria cirrhosa*: Integrating herbal medicine production with biodiversity conservation.....77



A new protective approach, Natural Fostering, which integrated herbal medicine production with community conservation was introduced. The principles of Natural Fostering adopted species-species interaction at community level. Most effective chemical components of herbal medicine are derived from such interaction.

Xin Jin, Zhenhai Zhang, E. Sun, Songlin Li and Xiaobin Jia Statistically designed enzymatic hydrolysis of an icariin/ $\beta$ -cyclodextrin inclusion complex optimized for production of icaritin .....	83
---	----



Complexation of icariin with  $\beta$ -cyclodextrin increased the solubility of icariin and allowed snailase enzyme mixture to effectively hydrolyze icariin to icaritin under optimal conditions obtained by statistical analysis.